

# MICHIGAN PERFORMANCE PLAN

## Fiscal Year 2017

The Michigan Office of Highway Safety Planning (OHSP), with technical assistance from the University of Michigan Transportation Research Institute (UMTRI), uses all available traffic crash data to examine trends in recent years and to project trend lines, using a predictive model approach.

Underlying trends on crashes, fatalities, and injuries can be influenced by many variables, including factors such as the number of vehicle miles traveled on Michigan roadways, the number and weights of vehicles on roadways, the relative strength of state and regional economies, weather conditions, and various safety aspects involving vehicles, roadway infrastructure, and emergency medical services.

Because short-term statistical results tend to reflect longer-term norms, and following a period of steady, long-term reduction in severe crashes, fatalities, and injuries through the early 2000s, single-year fluctuations in crashes and fatalities are somewhat predictable and can be expected, even as the long-term trend continues downward.

Fatalities in Michigan have varied within a tight range over the most recent five-year period, ranging from 876 to 963 between 2011 and 2015. Michigan averages about 918 per year (not greatly differing from the rolling five-year average since Michigan first achieved fewer than 1,000 fatalities, in 2008). Meanwhile, serious injuries ranged from 4,865 to 5,706 for the same period, and averaged roughly 5,500 per year. Thus, while fatalities over the past five years are up by about five percent from the overall five-year average, serious injuries are down by some 12 percent from the five-year average. The number of serious injuries occurring in 2015 in Michigan (4,865) represents an all-time low for annual serious injuries in Michigan.

Based on these expected statistical fluctuations within an all-time low range of fatalities and injuries since 2011, it is not surprising that projections for the next few years indicate an upward short-term trend in traffic crashes and fatalities through 2019. A projected five-year trend model is the measure used by the OHSP to determine the most effective countermeasures to implement, in efforts to halt or reverse any upward trend.

Emphasizing the prevention of impaired driving crashes and consistent use of proper restraints for vehicle occupants are historically proven strategies. Observed daytime safety belt usage was 92.8 percent in 2015, down less than a half-point from the most recent five-year average of 93.2 percent.

Preliminary statistics for 2015 show that serious crashes involving alcohol and drugs numbered about the same as the most recent five-year average, but crashes involving young drivers, older drivers, bicycles, and motorcycles all were down in 2015 from the

most recent five-year average. Crashes involving pedestrians increased from the five-year average.

Preventing deaths and serious injuries, and reducing crash severity, are priority goals for the state that call on Michigan's traffic safety partners to implement the most effective countermeasures available.

The goal of reducing fatalities and injuries on Michigan's roads drives the planning process for the state's annual Highway Safety Plan (HSP). The plan that follows is Michigan's strategy for saving lives and decreasing injuries.

The planning blueprint for FY2017 begins with a brief look at Michigan's demographics. This provides context for how traffic safety solutions are identified, implemented, evaluated, and improved. The HSP details Michigan's most significant traffic crash issues and problems, identifies the most effective countermeasures to address them, and reports on progress of the partners selected to implement the countermeasures.

## **PROCESS DESCRIPTION**

### **PROGRAM PURPOSE: REDUCE TRAFFIC CRASHES, FATALITIES, AND INJURIES**

Each year, the Michigan OHSP and safety partners focus on the state's primary safety goals, to reduce traffic crashes, fatalities, and injuries. Staff analysts utilize a comprehensive body of traffic crash data and research in combination with the experience and advice of traffic safety professionals from a variety of disciplines to identify root causes of traffic problems, and to select the most effective countermeasures for implementation.

The focus is on what actions will save the most lives, prevent the most crashes, and prevent or lessen the most injuries. Limited resources call for strategies to be implemented where they will be most effective, with attention to geographical circumstances, and monitored for results and impact. Success is measured against goals and benchmarks for fatality and injury reduction.

The OHSP staff pursues these programs with the participation and cooperation of highway safety partners at the national, state, and local levels. This team-oriented approach helps ensure that Michigan's efforts are understood and coordinated among enforcement, engineering, education, and emergency medical services teams to ensure more comprehensive and interdependent traffic safety programs that save lives and reduce injuries.

#### **Pre-planning Steps**

Implementation of the current HSP occurs in conjunction with planning for the next year's HSP. Planning begins in November each year with an "after action review" of the previous year's HSP, identifying areas of success, along with areas in need of improvement, including changes planned to yield greater success in the year ahead.

The pre-planning process also involves brainstorming among staff members on new and innovative strategies that could show promise in the next year, along with a review of effective countermeasures from the past. The OHSP then revises the planning process and calendar (Exhibit 1). Effective pre-planning ensures that OHSP's program development remains dynamic and responsive to even short-term changes in the traffic safety environment.

## Exhibit 1: FY2017 Highway Safety Plan Calendar

Timeline	Tasks
July 1-30	FY2016 HSP After Action Review
August 1-30	Finalize grant development plan (GDP) template
Nov 1-30	Finalize planning calendar
January-February 1	Schedule program area discussions and review GDPs for HSP FY2017.
February 1-April 22	Research and prepare grant development plans: <ul style="list-style-type: none"> <li>• conduct network meetings</li> <li>• review SHSP Action Plans</li> <li>• review other states and NHTSA programs</li> </ul>
March 8	Collective planning meeting with UMTRI
March 22-24	Traffic Safety Summit
April 1	Send UMTRI crash data to Governor's Highway Safety Association (GHSA) consultant
April 25-May 6	Individual program area discussions
May	Draft Performance Plan due
May 11-12	Management completes review of GDPs and budgets
May 13	Deadline to notify program coordinators of final changes to GDPs
May 18	Final edits to GDPs completed
May 24	GDPs are approved and moved into GDP approved folder
May 25	Final GDPs and budgets sent to GHSA consultant
May 25	Final revision of budget spreadsheet
June 3	Draft Appendix D data due
June 13	Draft HSP due for program areas
June 20	Draft HSP review
June 20	Draft Ad Board forms due for non-state agency grants/programs over \$250,000
June 22	Final draft of HSP and Performance Plan changes completed. All changes after this date are revisions to be made after October 1.
June 23	Final review of HSP
July 1	HSP to NHTSA and program staff
July 1-30	In-house grant budgets developed
July 7	After Action Review and Survey
August 19	All OHSP in-house grants ready for OHSP Director review.
Aug 22-26	OHSP in-house grant reviews
Sept 1	HSP distribution
Sept 2	All grants with Oct 1 start-up date ready for Authorizing Official submission.
October 1	Begin work on grants for FY2017.

## Plan Organization

Development of the performance plan follows the steps of the OHSP's planning process. Crash data analysis, research, and consultation with program partners and stakeholders are continual within each step. Program and financial staff meet monthly to exchange information about HSP program activities. Grant and revision activity is monitored to ensure programs remain on track for successful completion.

OHSP staff members incorporate crash data and other safety information into program development and implementation whenever possible and continue to monitor for additional emerging ideas and opportunities.

Each step of the planning process is identified as follows:

1. Problem Identification
2. Goal Determination and Analysis
3. Performance Measures
4. Traffic Safety Partner Input
5. Budget Development
6. Project Selection

### 1. PROBLEM IDENTIFICATION

The annual highway safety planning process begins in November with comprehensive crash data analysis. The OHSP safety planning depends upon a full understanding of current crash data and what problems exist. The OHSP looks at many variables to determine emerging and current issues, including crash locations, time of day, driver characteristics, road conditions, environmental elements, and various other mitigating factors.

The initial data review highlights factors that contribute to the highest percentages of fatalities and serious injuries. These key variables cannot be ignored, and help determine which problem-solving goals are established. Additional factors may be considered, such as severe but non-life-threatening injuries, along with trends that could potentially increase fatalities and serious injuries, or situations for which strong countermeasures exist, may be improved most quickly using proven strategies.

Data analysis continues year-round, with intensified efforts early in the HSP and grant development plan process. The timeliness, accuracy, and accessibility of Michigan traffic crash data allows current information to be incorporated into program development and implementation. Examples of important current information include aspects such as times of the year or month that see the most alcohol-involved crashes, the correlation of driver age with fatal crash rates, areas that see the most nighttime crashes, or the demographics involved in fatal and serious injury motorcycle crashes.

OHSP staff, working with various traffic safety partners, has many tools to improve problem identification. Authorized safety partners and agencies can access the state

crash database directly through a variety of interfaces, including websites and query tools.

For the general public, the UMTRI hosts the OHSP-sponsored Michigan Traffic Crash Facts (MTCF) website at [www.michigantrafficcrashfacts.org](http://www.michigantrafficcrashfacts.org). This website features dozens of data tables addressing the most common crash data facts and comparative figures, including an archive dating back to 1992.

The website also includes fact sheets for state and county data, and a query tool allowing users to build their own data searches, mapping tools, charts, tables and GIS capability. MCTF site users also have access to traffic crash reporting forms (UD-10s) submitted by law enforcement officials to the Michigan State Police (MSP) Criminal Justice Information Center (CJIC) Traffic Crash Reporting Unit (TCRU).

The OHSP problem identification process is based on trend data reported from the most recent five-year period for which data is complete and available. Data analysis is conducted for the OHSP by an independent outside source to ensure that no bias is attached to the results. For FY2017 planning, the OHSP's problem identification was conducted by research statisticians from the UMTRI.

In addition, the Wayne State University Transportation Research Group provided assistance researching and formulating Michigan's 2013-2016 Strategic Highway Safety Plan (SHSP), available at [www.michigan.gov/msp](http://www.michigan.gov/msp).

The collaboration and sequencing of the HSP and the SHSP ensures uniformity among the top safety goals in Michigan, encourages a team effort in implementing various safety programs, and ensures a unique diversity of working groups among Michigan's traffic safety stakeholders focusing on the SHSP vision of "Toward Zero Deaths on Michigan Roadways."<sup>1</sup>

This collaboration of plans, implementation, and the OHSP's continuing safety partnership with the Michigan Department of Transportation assures that the mandated goals remain identical within both plans to reduce fatalities, serious injuries, and the statewide fatality rate per 100 million vehicle miles traveled (100M VMT).

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<sup>1</sup> State of Michigan Strategic Highway Safety Plan 2013-2016

## 2. GOAL DETERMINATION AND ANALYSIS

Goals are statements of program intent or purpose, consistent with the mission of the organization. The Michigan statewide performance plan for FY2017 includes goals for 2017 and beyond, based on trend data analysis from the previous five-year period (the period 2011-2015 for the FY2017 HSP).

Quantitative targets to reduce fatalities and serious injuries are set through crash projections based on five-year crash trends using a regression predictive statistical model. The UMTRI also assisted with the development of the goals to provide objective analyses throughout the planning process for FY2017.

Goal determination for FY2017 begins with an overview summary of Michigan traffic crash statistics which includes the most current complete five-year data available, as in the table below.

Crash Data Comparison (2011-2015)

	2011	2012	2013	2014	2015	Percent Change 11-15
Total Crashes	284,049	273,891	289,061	298,699	297,203	.05
Fatal Crashes	834	870	881	806	893	.07
People Injured	71,796	70,519	71,031	71,378	74,157	.03
People Killed	889	936	951	876	963	.08
Fatality Rate (100M VMT)	.9	1.0	1.03	.93	1.04	.16
Fatal Crash Rate (100M VMT)	.9	.9	.95	.86	.96	.07
VMT (Billions)	94.8	94.3	95.1	94.1	92.6	-.02
Registered Vehicles (Millions)	8.13	8.10	8.17	8.21	8.8	.08
Population (Millions)	9.88	9.82	9.90	9.91	9.92	.01

Crash numbers in 2015 were up from previous years and were higher than the five-year average in most categories. Analysis is centered on any consistent causes for such changes, and any potential for effective countermeasures to help reduce crashes, fatalities and injuries in future years.

In each of the following tables, a predictive model analysis was applied to each crash category based on the identified trends.<sup>2</sup> In some cases, trends are expected to increase based on the most recent five-year experience. Michigan adopted a goal of a one percent decrease for each category in each subsequent year, to try to stop or slow any upward trend, and future-year goals were applied from these calculations. Reduction percentage goals for fatalities and serious injuries remain the same in order to remain consistent with the goals set in the Michigan SHSP. The OHSP's revised long-term goals through FY2019 follow in Exhibit 2, including annual benchmarks through 2015.

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<sup>2</sup> University of Michigan Transportation Research Institute



<b>Exhibit 2: OHSP FY2017 Goals</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
*Fatalities	889	940	947	901	963	750 <sup>3</sup>	742	735	728
*Fatalities per 100M VMT	0.94	.99	1.00	0.93	1.03	.86 <sup>4</sup>	.85	.84	.83
*Injuries A, B, C	71,796	70,518	71,031	71,378	74,157	73,415	72,681	71,955	71,235
KA	6,595	6,612	6,234	5,785	5,828	5,503	5,266	5,030	4,794
KA involving alcohol	1,253	1,320	1,214	1,016	1,199	1,077	1,036	994	953
*KA involving drugs	404	410	437	378	473	468	464	459	454
Fatalities to unrestrained vehicle occupants	193	224	183	196	195	188	185	181	178
Daytime safety belt use--front seat occupants	94.5%	93.6%	93%	93.3%	92.8%	98%	98%	98%	98%
KA to vehicle occupants ages 0 to 8	105	124	84	73	86	68	59	50	41
KA at intersections	2,158	2,187	2,005	1,861	1,881	1,754	1,666	1,578	1,490
KA involving lane departure	2,688	2,612	2,535	2,254	2,271	2,114	1,995	1,876	1,757
KA on local roads	3,877	3,914	3,525	3,291	3,427	3,150	2,998	2,845	2,693
KA involving motorcycles	695	794	712	634	670	638	617	596	575
*KA involving pedestrians	554	482	529	513	560	554	549	543	538
KA involving bicyclists	174	191	194	156	175	168	165	162	158
KA to men	3,730	3,815	3,618	3,301	3,494	3,296	3,197	3,099	3,000
KA - drivers ages 15-20	1,506	1,382	1,186	1,036	1,095	891	774	657	540
KA - drivers ages 21-24	978	1009	991	883	850	828	789	751	713
*KA - drivers ages 65+	1,050	1,135	1,094	1,104	1,017	1,007	997	987	977
KA - 3 to 6 pm	1,405	1,396	1,275	1,188	1,209	1,115	1,055	995	935
KA - 12 to 3 am	618	608	523	524	504	462	431	399	368
KA - noon Fri to noon Sun	2,234	2,258	2,161	1,973	2,031	1,924	1,855	1,786	1,717
KA - Jul to Sept	2,004	1,992	1,952	1,799	1,797	1,727	1,666	1,605	1,545

<sup>3</sup> The data matches the Michigan State Highway Safety Plan 2013-2016.

<sup>4</sup> The data matches the Michigan State Highway Safety Plan 2013-2016.

\*Predictions based on a trend analysis predictive model indicated these performance areas would increase in 2017-2019. In order to stop the trend, a one percent decrease was applied to each year.

### **Traffic Fatalities**

The most important traffic safety goal is to reduce traffic fatalities. Other factors may be considered, but the critical measure of success for Michigan focuses on human life. According to Michigan researchers, the purely economic, comprehensive cost of a single traffic fatality in Michigan amounts to more than \$3.6 million. This cost alone justifies using significant resources in efforts to prevent the more than 900 fatalities that occur on average annually.

This economic calculation does not take into account the personal aspects of a precious life lost or family and loved ones left behind. In 2015, fatalities totaled 963, about 100 higher than the historic low fatality totals last seen consistently in the 1920s when far fewer cars were on the road. Michigan's goal is to lower fatalities to the 1920s levels, reduce numbers, and continue downward on the path toward zero deaths.

### **Fatalities and serious Injuries (KAs)**

Fatal and serious injuries are the most consistent measure of severe crashes available for traffic safety planning. Fatal and serious injuries include crashes with the greatest harm and happen in sufficient numbers to perform meaningful analysis. Michigan classifies injuries according to the KABCO scale: K=fatal; A= serious; B=non-serious; C=possible; and 0=none (property damage only).

Traffic Fatalities (K's) <sup>5</sup>				
Year	Actual		Year	Goal
2011	889		2016	750 <sup>6</sup>
2012	940		2017	742 <sup>7</sup>
2013	947		2018	735
2014	901		2019	728
2015	*Pending			

<sup>5</sup> This data is from the FARS database located at [http://www-nrd.nhtsa.dot.gov/departments/nrd-30/nrsa/STSI/26\\_MI/2013/26\\_MI\\_2013.htm](http://www-nrd.nhtsa.dot.gov/departments/nrd-30/nrsa/STSI/26_MI/2013/26_MI_2013.htm). The data matches the Michigan State Highway Safety Plans for 2013-2016 and 2017-2018.

<sup>6</sup> The data matches the Michigan State Highway Safety Plan 2013-2016.

<sup>7</sup> Predictions based on a trend analysis predictive model indicated these performance areas would increase in 2017-2019. In order to stop the trend, a one percent decrease was applied to each year.

\*Pending release of 2015 FARS data.

Serious Injuries (A's) <sup>8</sup>				
Year	Actual		Year	Goal
2011	5,706		2016	4,800 <sup>9</sup>
2012	5,676		2017	4,308
2013	5,283		2018	4,063
2014	4,909		2019	3,818
2015	4,865			

### Vehicle Mileage Fatality Rate

The vehicle miles traveled (VMT) fatality rate adjusts the worst outcome of a crash (fatalities) by a common exposure variable (vehicle miles traveled). This measure is defined as how many people have died in vehicle-related crashes compared to the total number of miles driven on Michigan roads.

The VMT fatality rate has been used nationally for many years, and provides a reliable means of tracking or comparing safety progress over a long period. If fatalities decrease while miles driven increase, the state is getting safer faster than the simple fatality count suggests. If both decrease, then some of the improvement is just a factor of people driving less. If miles driven decrease while fatalities increase, then a closer examination of the data is warranted for possible problem identification.

VMT Fatality Rate <sup>10</sup>				
Year	Actual		Year	Goal
2011	.94		2016	.86 <sup>11</sup>
2012	.99		2017	.85
2013	1.00		2018	.84
2014	.93		2019	.83
2015	*Pending			

<sup>8</sup> This data is from the state database.

<sup>9</sup> The data matches the Michigan State Highway Safety Plan 2013-2016.

<sup>10</sup> This number is the number of fatalities (people) per 100 million vehicle miles traveled. This data is from the FARS database located at [http://www-nrd.nhtsa.dot.gov/departments/nrd-30/ncsa/STSI/26\\_MI/2013/26\\_MI\\_2013.htm](http://www-nrd.nhtsa.dot.gov/departments/nrd-30/ncsa/STSI/26_MI/2013/26_MI_2013.htm). The data matches the Michigan State Highway Safety Plans 2013-2016 and 2017-2018.

\*Pending FARS data release for 2015

<sup>11</sup> The data matches the Michigan State Highway Safety Plan 2013-2016.

## Traffic Injuries

While Michigan strives to eliminate traffic fatalities, it also wants to decrease the severity of crash-related injuries. Crash avoidance seeks to reduce fatalities and injuries. Crash mitigation aims to decrease the severity of crashes in relation to fatality and injury reduction.

Traffic Injuries (A's,B's,C's)				
Year	Actual		Year	Goal
2011	71,796		2016	73,415 <sup>12</sup>
2012	70,518		2017	72,681
2013	71,031		2018	71,955
2014	71,378		2019	71,235
2015	74,157			

## Alcohol-Impaired and Drug-Impaired Driving

Crashes involving impaired-driving (alcohol and/or drugs) are disproportionately more severe than other crashes, constituting more than 40 percent of fatal crashes from 2011 to 2015. Despite decades of education and enforcement efforts, impaired driving remains a devastating traffic safety and public health problem.

Impaired driving is usually thought of as a drunk-driving problem. Since drug-use testing began in 2008, analysts have seen increased levels of blood samples from drivers suspected to be under the influence of drugs. Results prior to 2008 may not provide a consistent basis for comparison. Recorded incidences of drug-involved crashes are more likely to increase due to updated training for law enforcement officers, including Advanced Roadside Impaired Driving Enforcement and Drug Recognition Expert programs.

KAs involving alcohol <sup>13</sup>				
Year	Actual		Year	Goal
2011	1,253		2016	1,077
2012	1,320		2017	1,036
2013	1,214		2018	994
2014	1,016		2019	953
2015	1,199			

<sup>12</sup> Predictions based on a trend analysis predictive model indicated these performance areas would increase in 2017-2019. In order to stop the trend, a one percent decrease was applied to each year.

<sup>13</sup> Alcohol or drug impaired involved crashes are coded from the UD-10 Michigan Crash Report as crashes where at least one person involved has been drinking or taking drugs; the person drinking or taking drugs could have been a driver, a passenger, a pedestrian, or a bicyclist.

KAs involving drugs <sup>14</sup>				
Year	Goal		Year	Goal
2011	404		2016	468 <sup>15</sup>
2012	410		2017	464
2013	437		2018	459
2014	378		2019	454
2015	473			

### Seat Belt Use

Seat belts are the most effective means available to reduce injury severity and prevent deaths in a traffic crash. Increasing motorists' use of seat belts in every seat location substantially improves crash survivability and reduces societal costs of crash-involved injuries.

In compliance with federal guidelines, Michigan annually observes and records seat belt usage among daytime front-seat occupants in areas representing at least 85 percent of the state's population.

Michigan recorded the highest seat belt use rate in the nation in 2009 at 97.9 percent. The OHSP set a benchmark goal of 98 percent. Current usage has dropped from this high level, but the current rate (92.8 percent) still qualifies Michigan as a high usage state nationally.

Fatalities to unrestrained vehicle occupants <sup>16</sup>				
Year	Actual		Year	Goal
2011	193		2016	188
2012	224		2017	185
2013	183		2018	181
2014	196		2019	178
2015	195			

<sup>14</sup> Alcohol or drug impaired involved crashes are coded from the UD-10 Michigan Crash Report as crashes where at least one person involved has been drinking or taking drugs; the person drinking or taking drugs could have been a driver, a passenger, a pedestrian, or a bicyclist.

<sup>15</sup> Predictions based on a trend analysis predictive model indicated these performance areas would increase in 2017-2019. In order to stop the trend, a one percent decrease was applied to each year.

<sup>16</sup> Unrestrained fatalities are coded from the UD-10 Michigan Crash Report as crashes including all occupant fatalities in all motor vehicles and excludes pedestrians and bicyclists. Unknowns or unavailable are not included.

Seat belt use <sup>17</sup>				
Year	Actual		Year	Goal
2011	94.5%		2016	98.0%
2012	93.6%		2017	98.0%
2013	93.0%		2018	98.0%
2014	93.3%		2019	98.0%
2015	92.8%			

### Child Passenger Safety

Seat belts are designed for adults. Children (under 8 years old or shorter than 4'9" tall) require a booster seat for the seat belt to fit and operate properly. Children under 4 years old need a certified child restraint (child safety seat).

Some parents are not sure what seat to use, how to install it properly, or why it is necessary. Police officers may not have extensive training in child safety seat usage, making it sometimes difficult to detect violations of child safety seat laws. As a result, children are often under-protected in a crash. The effects of child passenger safety show up more in crash-injury than crash-fatality data.

A seat belt alone often can prevent a death, but proper child restraint helps prevent serious internal injuries to children in a crash, particularly to the neck, spine, and internal organs.

KA injuries, passenger vehicle occupants ages 0-8 <sup>18</sup>				
Year	Actual		Year	Goal
2011	105		2016	68
2012	124		2017	59
2013	84		2018	50
2014	73		2019	41
2015	86			

### Intersection Crashes

Many crashes, especially those involving left turns, occur when vehicles meet at intersections. The severity of intersection crashes is worsened by the risk of angle (T-bone) collisions during turns. About one-third of all crashes happen in or near intersections. Of this one-third in 2015, nearly half occurred at signalized intersections, about one-fourth at sign-controlled intersections, and the rest occurred at intersections with no traffic control.

<sup>17</sup> Daytime front seat observed occupants of motor vehicles as reported in the Michigan Direct Observation Safety Belt Survey.

<sup>18</sup> Includes passenger vehicles, vans, pick-up trucks and small trucks less than 10,000 pounds.

Intersection crash problems can be related to roadway engineering, driver behavior, or exposure. Any program to improve safety, especially in urban areas, must address the incidence of intersection crashes.

KAs at intersections <sup>19</sup>				
Year	Actual		Year	Goal
2011	2,158		2016	1,754
2012	2,187		2017	1,666
2013	2,005		2018	1,578
2014	1,861		2019	1,490
2015	1,881			

### Lane Departure

Most fatal crashes happen when a car leaves its roadway lane. The driver might steer into a ditch, miss a turn, cross the centerline, or put the car into the path of another vehicle or roadside object. “Lane departure” includes roadway departure, but also includes incidents such as sideswipes and highly dangerous head-on crashes. Lane departure often is connected to alcohol and/or drug impaired, drowsy, and distracted driving. Any impairment makes someone more likely to drift or miss a turn. Focused and attentive driving are keys to avoiding a vehicle crash.

KAs involving lane departure <sup>20</sup>				
Year	Actual		Year	Goal
2011	2,688		2016	2,114
2012	2,612		2017	1,995
2013	2,535		2018	1,876
2014	2,254		2019	1,757
2015	2,271			

### City-County Roads

Most vehicle miles are driven on state roads overall, but the majority of serious crashes happen on local roads. Efforts directed to prevent or mitigate crashes directly affect safety on local as well as state roads. City, county, and other local roads include the majority of intersections and miles of pavement statewide, and can present unique challenges for all aspects of traffic safety. Countermeasures targeting high-crash locations are almost certain to take place on local roads.

<sup>19</sup> Intersections are coded on the UD-10 Michigan Traffic Crash Report as within an intersection, intersection driveway related or within 150 feet of nearest edge of an intersection or intersection related-other.

<sup>20</sup> Lane departure crashes are coded from the UD-10 Michigan Crash Report as crashes involving single or multiple or parked motor vehicle that leaves its lane.

KAs on local roads <sup>21</sup>				
Year	Actual		Year	Goal
2011	3,877		2016	3,150
2012	3,914		2017	2,998
2013	3,525		2018	2,845
2014	3,291		2019	2,693
2015	3,427			

## Motorcycles

Fatalities and injuries involved with motorcycle crashes tend to fluctuate, sometimes based on factors like unseasonably nice weather, and are difficult to predict or mitigate. Motorcycle fatalities often involve just the single vehicle for many reasons. Motorcycle ridership is increasing at a steady rate in Michigan and nationally. Young motorcyclists are not seeking proper training and licensure. Many older riders have less experience and control when using today's more powerful motorcycles.

The largest increase in motorcycle use is among older riders, which also can negatively affect crash survivability. Older bodies are more likely to suffer injury and have diminished ability to recover.

The Michigan Legislature enacted Public Act 98 of 2012 on April 13, 2012, which modified the requirements for motorcycle helmet usage:

- Riders 21 and older with more than two years of experience riding a motorcycle that have attended a motorcycle safety course, have a choice on whether or not to use a helmet. Riders must carry at least \$20,000 in first-party medical insurance benefits.
- Riders under 21 are required to use government-approved helmets.

KAs involving motorcycles <sup>22</sup>				
Year	Actual		Year	Goal
2011	695		2016	638 <sup>23</sup>
2012	794		2017	617
2013	712		2018	596
2014	634		2019	575
2015	670			

<sup>21</sup> Local road crashes are coded from the UD-10 Michigan Crash Report as crashes including all crashes involving crashes on county roads, city streets, or unknown.

<sup>22</sup> Motorcycle involved crashes are coded from the UD-10 Michigan Crash Report as crashes where at least one motorcycle was present; other users could have been another motorcyclist, passenger vehicle, truck, van, pedestrian, or a bicyclist.

<sup>23</sup> Predictions based on a trend analysis predictive model indicated these performance areas would increase in 2017-2019. In order to stop the trend, a one percent decrease was applied to each year.



## Pedestrians

Pedestrians represent nearly one in every seven traffic fatalities (15 percent) each year, and pedestrian fatalities present a unique challenge to safety planners. Behavioral interventions for improving pedestrian safety can help drivers avoid pedestrians, while others strive to keep pedestrians out of harm's way. Due to relatively high exposure and lack of experience, those most likely to be hit are younger pedestrians during daytime hours.

Due to increased body frailty of seniors, along with alcohol and/or drug use by drivers (or pedestrians) during the evening hours, older pedestrians are more likely to be hit and killed at night.

KAs to pedestrians <sup>24</sup>				
Year	Actual		Year	Goal
2011	554		2016	554 <sup>25</sup>
2012	482		2017	549
2013	529		2018	543
2014	513		2019	538
2015	560			

## Bicyclists

Bicyclists represent about three percent of traffic fatalities and incapacitating injuries each year. Bicycle riders are exposed to the elements and vehicles on the roadways with no physical protection other than riding gear such as helmets or body pads.

Successful countermeasures include instruction about use of high-visibility clothing and equipment, adherence to bicycle laws, and proper use of bicycle lanes. Education of the motoring public and law enforcement officers about safety for bicyclists are proven countermeasures to help prevent crashes.

KAs to bicyclists <sup>26</sup>				
Year	Actual		Year	Goal
2011	174		2016	168
2012	191		2017	165
2013	194		2018	162
2014	156		2019	158
2015	175			

<sup>24</sup> Pedestrians are coded from the UD-10 Michigan Crash Report as crashes where at least one pedestrian was present; the pedestrian could also be a driver who exited a vehicle, motorcycle, bicycle, etc., a person on horseback or in a horse drawn buggy or a person who was in a wheelchair.

<sup>25</sup> Predictions based on a trend analysis predictive model indicated these performance areas would increase in 2017-2019. In order to stop the trend, a one percent decrease was applied to each year.

<sup>26</sup> Bicyclists are coded from the UD-10 Michigan Crash Report as crashes where at least one bicyclist was present.

## Men

Most of the risky behaviors that result in a fatal or serious injury are more common in males. Men tend to buckle up less, drink and drive more, drive faster, and drive motorcycles more frequently. These behaviors are even more prevalent in young men. Federal surveys of travel trips estimate that men do about 61 percent of the nation's driving, so it is expected that male drivers are involved in more crashes.

Men are consistently two-thirds or more of all traffic fatalities. Fatal and serious injuries are significantly less among women, and tend to drop faster statistically, even when exposed to the same traffic variables.

KAs to men <sup>27</sup>				
Year	Actual		Year	Goal
2011	3,730		2016	3,296
2012	3,815		2017	3,197
2013	3,618		2018	3,099
2014	3,301		2019	3,000
2015	3,494			

## Young Drivers<sup>28</sup>

Younger drivers crash more often due to inexperience and a tendency for greater risk taking, especially among young male drivers.

Crash survivability is higher among young drivers because young bodies are less vulnerable to damage than older passengers. Typically, the lack of experience among younger drivers, including poor judgment and driver errors of greater severity or at higher speeds, can offset survivability.

Of those killed in crashes involving young drivers, about one in three are the drivers, one-third are passengers with a young driver, and one-third are other drivers, passengers, and pedestrians. Drivers under 18 may participate in Graduated Driver Licensing, which allows gradual exposure to greater driving demands under structure and supervision.

Crash involvement per driver peaks at age 18, with no supervision, more exposure, and incomplete driving skills. Persons under 21 may not legally drink, which limits impaired crashes involving underage drivers. Alcohol-involved crashes tend to peak at 21, the age of legal access to alcohol. As a sense of responsibility and driving experience increase, and brain development becomes complete by the mid-20s, crash involvement drops significantly. By age 25, the most dangerous years are past, and after 35 the risk of crash injury tends to follow the average.

<sup>27</sup> Men are coded from the UD-10 Michigan Crash Report as any male killed or incapacitated in a crash; he could be a driver, passenger, pedestrian, or bicyclist.

<sup>28</sup> Young drivers ages 15-20 and 21-24 are coded from the UD-10 Michigan Crash Report as any crash involving at least one driver age 15-20 or 21-24 ; the driver of the other car may also fall in the any age categories.

KAs involving drivers ages 15 to 20				
Year	Actual		Year	Goal
2011	1,506		2016	891
2012	1,382		2017	774
2013	1,186		2018	657
2014	1,036		2019	540
2015	1,095			

KAs involving drivers ages 21 to 24				
Year	Actual		Year	Goal
2011	978		2016	828
2012	1,009		2017	789
2013	991		2018	751
2014	883		2019	713
2015	850			

### Senior Drivers<sup>29</sup>

Michigan ranks eighth in the nation for the number of drivers age 65 or older per 1.1 million licensed drivers. For each mile traveled, fatal crash rates increase noticeably starting at age 70 and are highest among drivers 85 and older. Senior drivers typically have slower reaction times among other age-related challenges as they continue to drive in their later years.

KAs involving drivers age 65 and older				
Year	Actual		Year	Goal
2011	1,050		2016	1,007 <sup>30</sup>
2012	1,135		2017	997
2013	1,094		2018	987
2014	1,104		2019	977
2015	1,017			

### Afternoon Rush Hour

High exposure leads to high crash numbers. At the end of the work and school day, more cars are on the road, drivers are more tired or perhaps in a hurry, and more crashes and fatalities tend to occur. Late afternoon is not disproportionately negative, but it is the time when most traffic fatalities occur in Michigan.

<sup>29</sup>Drivers 65 and older are coded from the UD-10 Michigan Crash Report as any male killed or incapacitated in a crash; he could be a driver, passenger, pedestrian, or bicyclist.

<sup>30</sup> Predictions based on a trend analysis predictive model indicated these performance areas would increase in 2017-2019. In order to stop the trend, a one percent decrease was applied to each year.

The morning rush hour does not peak as much, perhaps because drivers are fresher. Late-day drivers are more likely to be tired or preoccupied. This effect worsens during the week as fatigue builds, tempers flare, and attention spans drift. Friday is the worst day for late afternoon crashes and fatalities. Dinner and “happy hour” times are the peak times of alcohol-involvement for drivers over 21. Seat belt usage also tends to be lower in the evening than in the morning.

KAs from 3 p.m. to 6 p.m.				
Year	Actual		Year	Goal
2011	1,405		2016	1,115
2012	1,396		2017	1,055
2013	1,275		2018	995
2014	1,188		2019	935
2015	1,209			

### Nighttime Driving

Late-night traffic is lighter, but crashes tend to be disproportionately more severe and more likely to involve alcohol. The period from midnight to 3 a.m. includes bar closing time, and is the peak time for alcohol impaired driving. Late night also is when seat belt usage is usually the lowest. Alcohol exacerbates drowsiness, making late-night drivers even less alert and competent after even a small amount of alcohol.

Alcohol involvement in crashes starts rising around 9 p.m., but does not spike until midnight. Alcohol-involved crashes peak between 2 to 3 a.m., when bars close. After 4 a.m., severe crashes diminish.

KAs from midnight to 3 a.m.				
Year	Actual		Year	Goal
2011	618		2016	462
2012	608		2017	431
2013	523		2018	399
2014	524		2019	368
2015	504			

### Weekend Driving

Serious crashes spike almost every weekend. Increased alcohol and/or drug use, nighttime driving, visiting unfamiliar areas, traffic congestion around popular venues, and decreased attention all contribute to a higher rate of serious crashes on Friday and Saturday evenings.

Noon Friday to noon Sunday represents a peak crash time, which includes both Friday after-work and Saturday night traffic. The Saturday night crash peak actually takes place early Sunday morning (after midnight), while the weekend peak begins early Friday afternoon as people leave work or school.

KAs from noon Friday to noon Sunday				
Year	Actual		Year	Goal
2011	2,234		2016	1,924
2012	2,258		2017	1,855
2013	2,161		2018	1,786
2014	1,973		2019	1,717
2015	2,031			

### Summer Travel

Summer months see more miles traveled on Michigan roadways as well as heavier travel to destinations in the state as tourism flourishes during the warmer months. From 2011 to 2015, August emerged as Michigan's worst month for total fatalities and alcohol-involved fatalities, with July to September as the worst three-month period of the year. Serious crashes are most common from June to November and significantly less common from January to March.

KAs from July to September				
Year	Actual		Year	Goal
2011	2,004		2016	1,727
2012	1,992		2017	1,666
2013	1,952		2018	1,605
2014	1,799		2019	1,545
2015	1,797			

## 3. PERFORMANCE MEASURES

The OHSP tracks numerous metrics to analyze results, set program goals, and monitor progress on identified crash problems. Crash data are key elements in performance review, as discussed in Section 2. Each project implemented and tracked has established goals and metrics applied by program staff in partnership with grantees and safety experts. Monitoring and evaluation is an ongoing process that leads to results assessment and improved future plans.

Publications available for improved performance measurement include the Annual Evaluation Report and Michigan Traffic Crash Facts.

The NHTSA and Governors Highway Safety Association (GHSA) have agreed on a minimum set of performance measures to be used by state and federal agencies in the development and implementation of behavioral highway safety plans and programs. Those measures are detailed in Exhibits 3 and 4 that follows.

All fatality numbers are from the Fatal Analysis Reporting System (FARS), with the rest coming from state databases and surveys. Goals are copied from Section 2 or set by the same procedure, from the normalized trend values to reduce the effects of annual variation. That is, if last year was unusually good for a program area, next year's goal should realistically assume some regression to the five-year rolling average.

FARS data for 2015 was not available before the FY2017 Performance Plan was finalized. The relevant boxes have been noted as "Pending" for later completion.

### Exhibit 3: Traffic Safety Performance Measures for States and Federal Agencies Crash Data and Goals <sup>31</sup>

	Actual						Goal			
	2011	2012	2013	2014	2015	5 year Average	2016	2017	2018	2019
Traffic fatalities	889	940	947	901	Pending	<b>Pending</b>	750*	742	735	728
Serious ("A") Injuries in traffic crashes <sup>32</sup>	5,706	5,676	5,283	4,909	4,865	<b>5,288</b>	4,800	4,308	4,063	3,818
Fatalities per 100 million VMT	.94	.99	1.0	.93	Pending	<b>Pending</b>	.86*	.85	.84	.83
<b>Rural fatalities per 100 million VMT</b>	1.32	1.41	1.53	1.33	Pending	<b>Pending</b>	Pending	Pending	Pending	Pending
<b>Urban fatalities per 100million VMT</b>	.76	.79	.77	.76	Pending	<b>Pending</b>	Pending	Pending	Pending	Pending
Unrestrained passenger vehicle occupant fatalities, all seat positions	193	224	183	196	Pending	<b>Pending</b>	188	185	181	178
Fatalities in crashes involving a driver or motorcycle operator with a BAC .08+	256	261	249	215	Pending	<b>Pending</b>	198	185	171	158
Speed-related fatalities	238	251	255	235	Pending	<b>Pending</b>	233*	230	228	226
Motorcyclist fatalities	118	138	138	112	Pending	<b>Pending</b>	111*	110	109	108
Unhelmeted motorcyclist fatalities	10	64	67	52	Pending	<b>Pending</b>	51*	50	49	48
Drivers age 20 or younger in fatal crashes	152	137	130	119	Pending	<b>Pending</b>	97	87	76	66
Pedestrian fatalities	138	130	148	148	Pending	<b>Pending</b>	147*	145	144	142
Bicycle Fatalities	24	19	27	22	Pending	<b>Pending</b>	21*	20	19	18
Safety belt use (daytime, observed) <sup>33</sup>	94.5%	93.6%	93.0%	93.3%	Pending	<b>Pending</b>	98.0%	98.0%	98.0%	98.0%
Safety belt citations issued during grant-funded enforcement activities (FY) <sup>34</sup>	12,662	17,701	15,772	16,496	18,843	<b>16,295</b>	No Goals	No Goals	No Goals	No Goals
Impaired driving arrests made during grant-funded enforcement activities (FY) <sup>35</sup>	1,379	1,926	2,196	1,196	2,109	<b>1,761</b>	No Goals	No Goals	No Goals	No Goals
Speeding citations issued during grant-funded enforcement activities (FY) <sup>36</sup>	4,246	4,451	4,175	5,061	8,317	<b>5,250</b>	No Goals	No Goals	No Goals	No Goals

\*Predictions based on a trend analysis predictive model indicated these performance areas would increase in 2016-2019.

In order to stop the trend, a one percent decrease was applied to each year. This will be updated and may change upon release of 2015 FARS data.

<sup>31</sup> FARS Data Used Unless Otherwise Indicated

<sup>32</sup> State Data Used

<sup>33</sup> State Direct Observational Seat Belt Study by Michigan State University

<sup>34</sup> State Data Used

<sup>35</sup> State Data Used

<sup>36</sup> State Data Used

**Exhibit 4: Traffic Safety Performance Measures for States and Federal Agencies  
GHSA/NHTSA Recommended Standardized Goal Statements  
Michigan Highway Safety Planning Goals 2015-2017**

<b>Performance Measure Identifier</b>	<b>Goal Statement<sup>37</sup></b>
C-1	To decrease traffic fatalities 18 percent from the 2014 value of 901 to 742 by December 31, 2017.
C-2	To decrease serious ("A") traffic injuries 12 percent from the 2014 value of 4,909 to 4,308 by December 31, 2017.
C-3	To decrease fatalities/VMT 9 percent from the 2014 value of .93 percent to .85 percent by December 31, 2017.
C-4	To decrease unrestrained passenger vehicle occupant fatalities in all seating positions 6 percent from the 2014 value of 196 to 185 by December 31, 2017.
C-5	To decrease alcohol impaired driving fatalities in which a driver has at least a .08 BAC 14 percent from the 2014 value of 215 to 185 by December 31, 2017.
C-6	To reduce speeding-related fatalities 2 percent from the 2014 value of 235 to 230 by December 31, 2017.
C-7	To reduce motorcyclist fatalities 2 percent at the 2014 value of 112 to 110 by December 31, 2017.
C-8	To reduce un-helmeted motorcyclist fatalities 4 percent at the 2014 value of 52 to 50 by December 31, 2017.
C-9	To reduce drivers age 20 or younger involved in fatal crashes 3 percent at the 2014 value of 119 to 87 by December 31, 2017.
C-10	To reduce pedestrian fatalities 2 percent from the 2014 value of 148 to 145 by December 31, 2017.
C-11	To reduce bicyclist fatalities 9 percent from the 2014 value of 22 to 20 by December 31, 2017.
B-1	To increase statewide observed seat belt use of front seat outboard occupants in passenger vehicles to 98 percent through December 31, 2017.

<sup>37</sup> The goals were established using a trend line-based analysis based on 2011-2015 data. A specific percent reduction was applied to each crash category based on the identified trends.



#### 4. TRAFFIC SAFETY PARTNER INPUT

Input from traffic safety partners is critical to the development of the HSP and for selecting projects. The OHSP constantly solicits feedback on programs effectiveness, new directions to pursue, and promising new programs.

The importance of external input cannot be overstated. Meetings, conferences, progress reports from grantees, and discussions in person, by telephone, and by email provide valuable information that works its way into OHSP programs. Routine conversations have led to significant improvements in programs that save lives, reduce costs, or improve efficiencies.

##### **Governor's Traffic Safety Advisory Commission**

Michigan is the only state to have a state-level traffic safety commission in place since the early 1940s. In 2002, the State Safety Commission and the Safety Management System were merged to create the Governor's Traffic Safety Advisory Commission (GTSAC).

The membership of the commission was expanded to include representatives from local units of government. The GTSAC consists of:

- the Michigan Governor (or a designee);
- State directors (or designees) of the Departments of Health and Human Services, Education, State, State Police, and Transportation, the Office of Highway Safety Planning, the Office of Services to the Aging; and
- three local representatives from the county, city, and township levels.

The GTSAC meets quarterly. Traffic safety advocates within the state can help develop the agenda, available through OHSP's website [www.michigan.gov/ohsp-gtsac](http://www.michigan.gov/ohsp-gtsac).

Communication among GTSAC members and traffic safety advocates throughout Michigan can be accomplished through the website along with an electronic state information delivery system that has more than 200 members. Website members receive news from the GTSAC along with general traffic safety news and information.

##### **Strategic Highway Safety Plan**

In December 2012, the GTSAC approved a statewide SHSP, which was signed by the Governor in February 2013. The SHSP identifies priority areas for the GTSAC member agencies to address traffic safety efforts in the state. Each priority area includes an action team created to facilitate open communication, coordinate individual agency efforts, and keep moving toward achieving the SHSP goals and objectives.

The OHSP staff participates in these action teams and incorporates information and recommendations from the SHSP into the annual Michigan HSP. Action plans are updated frequently to reflect emerging issues or completed action items. The next SHSP update will occur in fall 2016 for 2017-2018.

### **Program Area Network Meetings**

In addition to the GTSAC Action Teams, OHSP program staff members serve as subject matter experts for specific traffic safety program areas. These staff members work with a network of partners across the state and nation to help generate ideas, highlight problems, and work together to identify appropriate strategies to resolve them. This network of partners gives OHSP program staff the ability to determine how and where to leverage available resources, and to determine whether model programs are working as planned and why, along with a ready list of partners having needed skills, knowledge or unique expertise throughout Michigan.

### **Traffic Safety Summit**

The Michigan Traffic Safety Summit is an annual conference for traffic safety practitioners who meet over three days to discuss traffic safety issues. The summit is the state's central event for traffic safety information sharing. It allows the OHSP and other partners to share promising ideas, solicit input and feedback from partners, and highlight best practice programs from local, state, and national levels.

### **Additional Planning Resources**

The OHSP consults a wide variety of resources for problem identification, priority setting, program selection, and grant awards. These ensure that Michigan is utilizing best practices and using the most effective means of reducing deaths and injuries.

These resources include:

- The Michigan Department of State Police Strategic Plan and other state and local plans.
- National plans, priorities, and programs, including those from the United States Department of Transportation (USDOT), Federal Highway Administration (FHWA), and the NHTSA.
- The NHTSA publication "Countermeasures That Work: A Highway Safety Countermeasure Guide for State Highway Safety Offices."
- NCHRP Report 622, "Effectiveness of Behavioral Highway Safety Countermeasures."
- The NHTSA publication "Traffic Safety Performance Measures for States and Federal Agencies." (DOT 811 025)
- The GHSA publication "Guidelines for Developing Highway Safety Performance Plans."
- The NHTSA publication "The Art of Appropriate Evaluation: A Guide for Highway Safety Program Managers. " (DOT HS 811 061)
- The UMTRI publication "Evaluating Traffic Safety Programs: A Manual for Assessing Program Effectiveness."

- The NHTSA publication “HSP Review Content Guide” updated in 2016.
- American Association of State Highway and Transportation Officials, the Transportation Research Board and the Association of Transportation Safety Information Professionals publications and conferences.
- Michigan Strategic Highway Safety Plan 2013-2016
- Academic publications and research reports.
- Staff participation on committees and associations, including: GTSAC Action Teams, Michigan Association of Chiefs of Police, Prevention Network, Michigan Coalition to Reduce Underage Drinking, the Michigan Deer Crash Coalition, regional Traffic Safety Networks, Michigan Sheriff’s Association, the Michigan Driver and Traffic Safety Education Association, and other state-level and federal associations.
- Feedback from grantees during the implementation, monitoring, and evaluation of traffic safety projects.
- Input provided by the general public.
- OHSP staff attendance at state, regional and national conferences and seminars to network and learn about developing tools, trends, countermeasures, and programs.

## **5. BUDGET DEVELOPMENT**

A projected budget for the annual HSP is prepared as staff members begin drafting program area plans and funding requests. The budgeting process takes into account prior year funding and carry-forward amounts for each funding source along with new and existing funding sources. This budget serves as the basis for allocating funding requests among the various traffic safety programs.

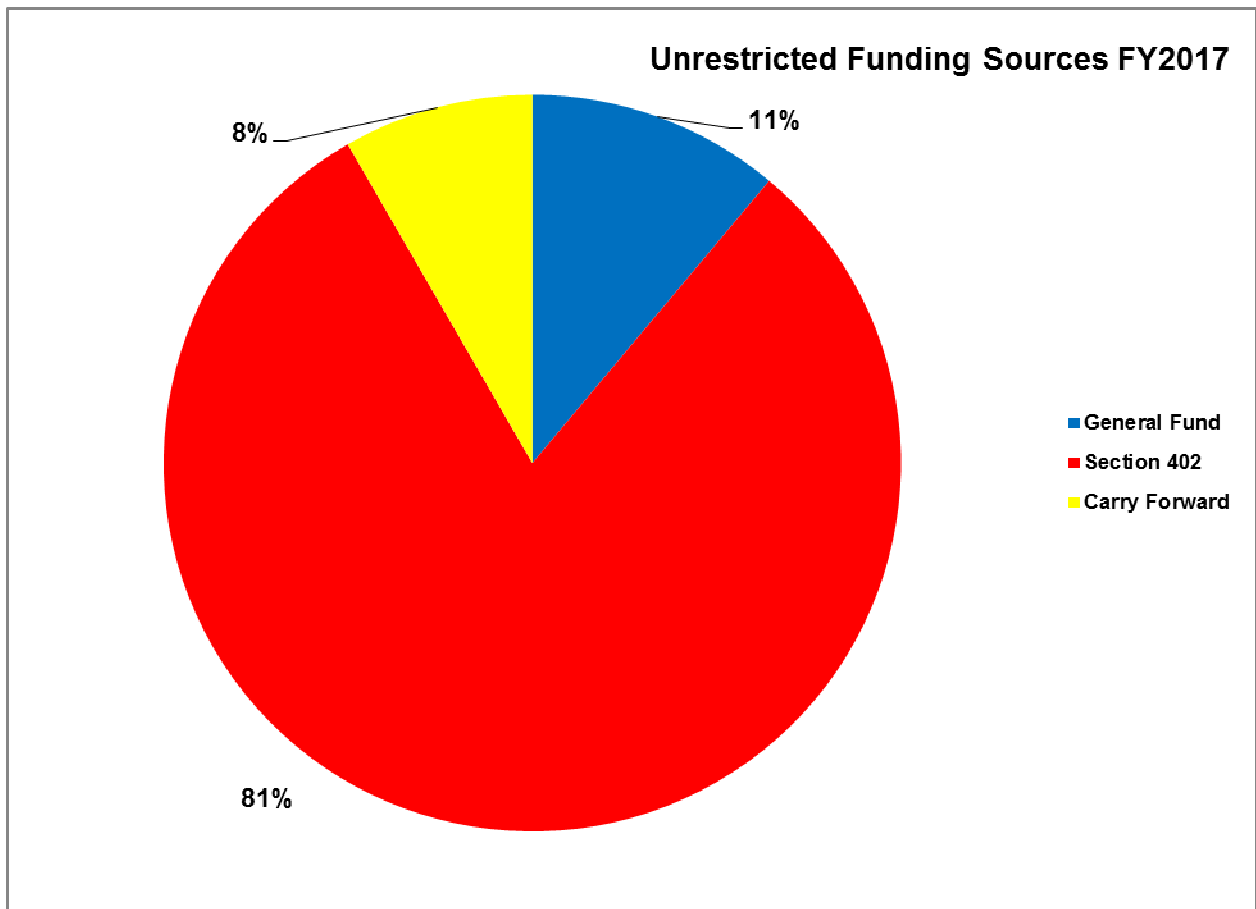
Before approving budgets for individual program areas, the HSP management team considers the merits of individual program funding requests along with:

- Program funding levels and liquidation rates from previous years.
- Related program funding.
- Special funding sources.
- Statewide long-range goals.

Strategies are reviewed to determine which should be fully funded, which can proceed with amendments, and which are not currently feasible. This process can shift the initial budget requests among program areas to accommodate essential or promising projects that warrant special support. Exhibits 3, 4, and 5 illustrate the projected sources of funding, program level budgets, and the distribution of funding by type.

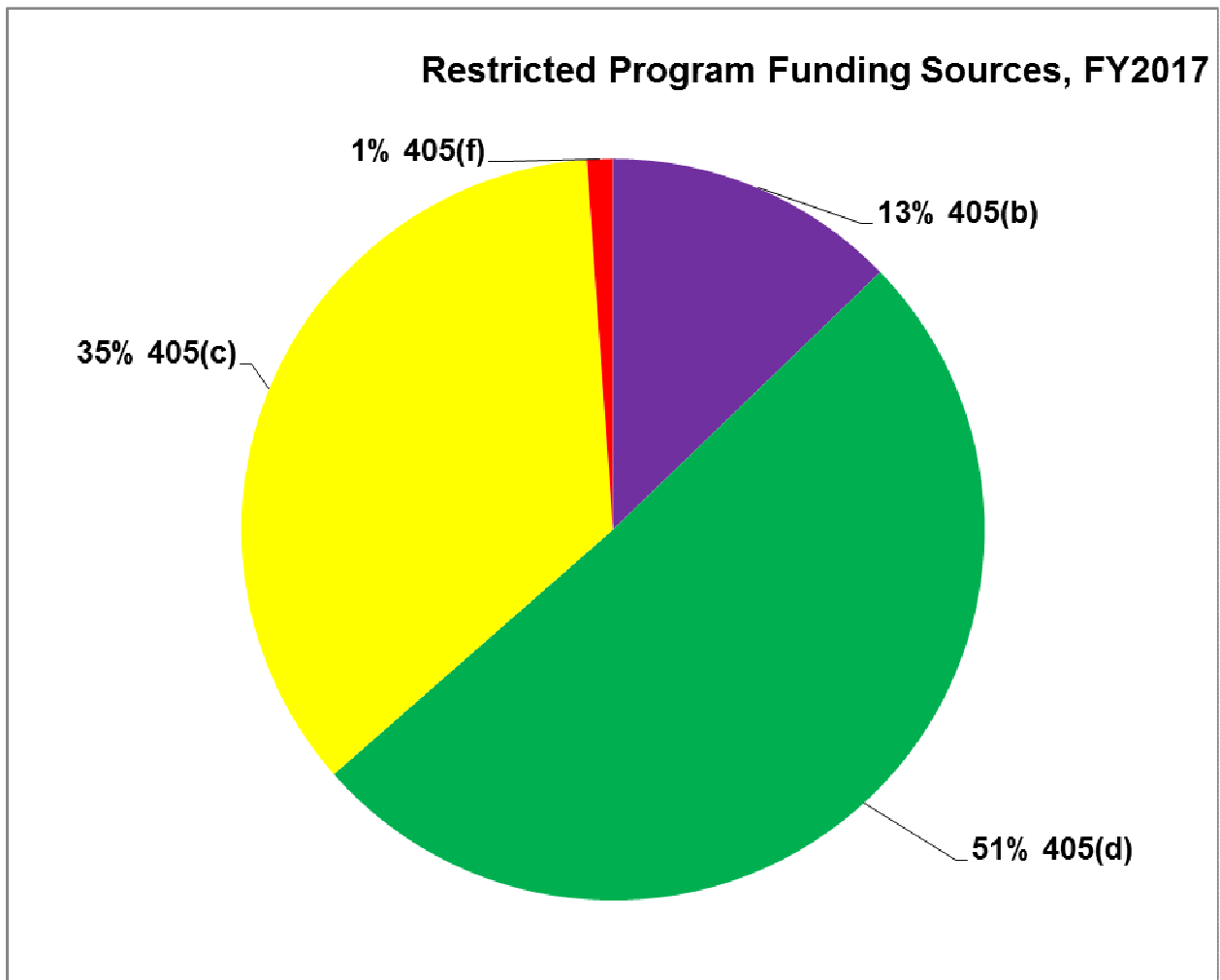
**EXHIBIT 5: Unrestricted Program Funding Sources, FY2017**

State General Fund	Section 402	Section 402 Carry Forward
\$593,100	\$4,276,000	\$446,000



**EXHIBIT 6: Restricted Program Funding Sources, FY2017**

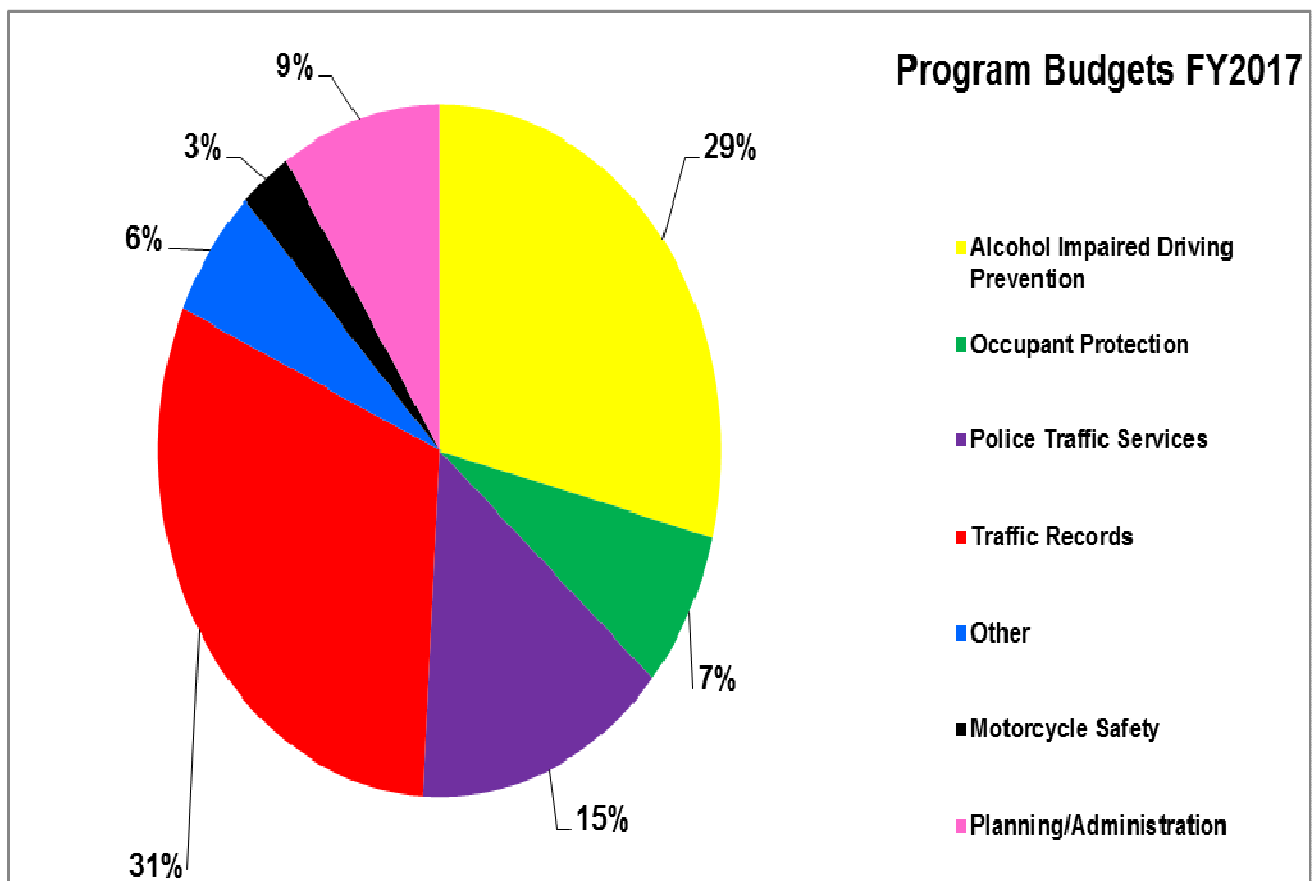
405(b) Occupant Protection	405(c) Traffic Records	405(d) Impaired Driving Prevention	405(f) Motorcycle Safety
\$1,700,000	\$4,700,000	\$6,750,000	\$150,000



## EXHIBIT 7: Program Budgets, FY2017

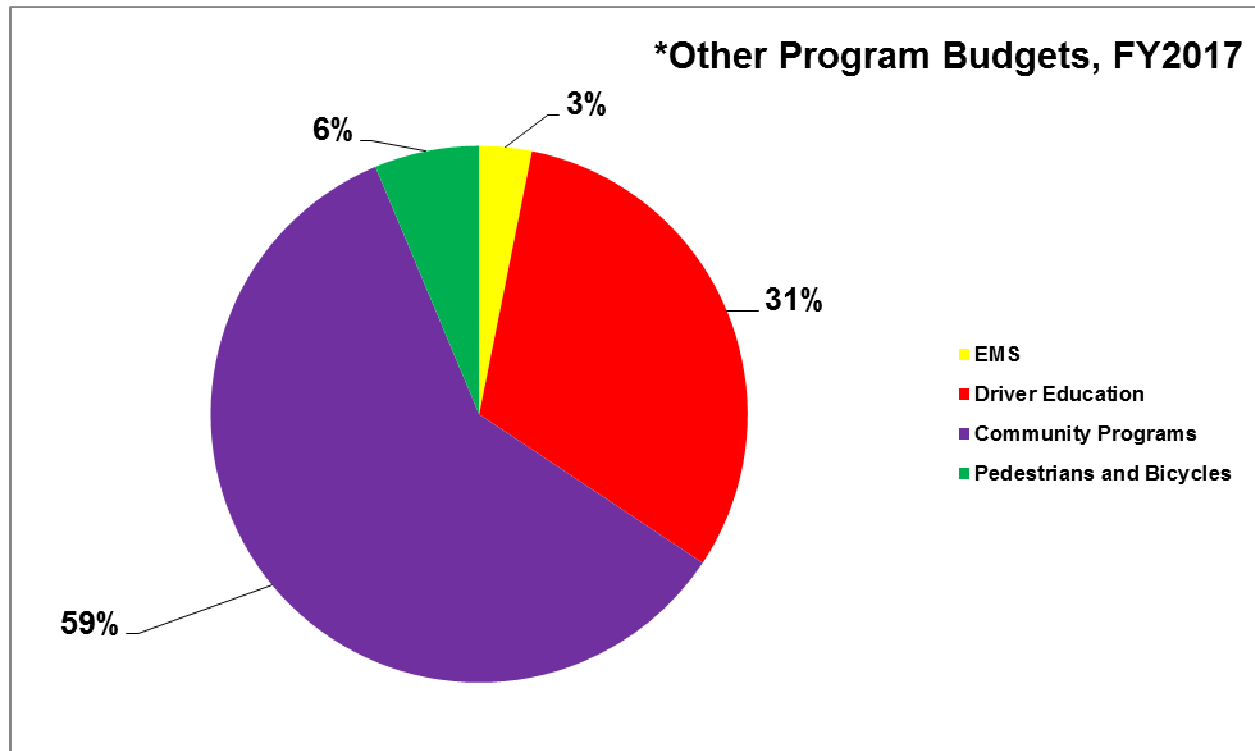
Impaired Driving Prevention	Occupant Protection	Police Traffic Services	Planning and Administration
\$3,752,000	\$950,000	\$1,884,000	\$1,185,300

Traffic Records	Motorcycle Safety	*Other Programs
\$3,974,000	\$381,000	\$792,000



**EXHIBIT 8: \*Other Program Budgets, Fiscal Year 2017**

Pedestrians and Bicycles	Community Programs	Driver Education	Emergency Medical Services
\$50,000	\$470,000	\$247,000	\$25,000



\*Note: Due to rounding, the percentages do not equal 100 percent.

## 6. PROJECT SELECTION

Projects are selected based on the potential for impacting traffic safety problems and moving Michigan toward achieving statewide traffic safety goals.

Problem identification yields projects to pursue, which leads to budget development and grant solicitation. The problems to address, including target areas and countermeasures, are selected in advance. This process includes potential grantees, but is not dependent on volunteers or proposals from the field.

For research-based projects, the OHSP sends out requests for proposals, which are distributed to an approved list of university and not-for-profit research agencies. Until selected, the grantee is denoted in the HSP as “To Be Determined” or TBD. Once a grantee is selected, the HSP is revised to reflect the name of the agency awarded the project. The OHSP actively seeks out grantees with particular expertise in problem areas under consideration.

When recommending programs, OHSP program staff considers:

- Population to be reached
- Extent of problem in the target population
- Supporting data
- Where and when implementation must take place
- Expected effectiveness of the proposed project
- Available competent partners to implement projects
- Most efficient and effective means of implementing the program
- Available funding sources

In some instances, programs such as training, public information, and mobilization campaigns are most effectively coordinated at the state level. The OHSP oversees these programs in Michigan. Some projects can be handled more effectively at the local level where the community experiencing the problem may need a unique ability to address its causes and react more quickly with countermeasures. The OHSP remains available for consultation and technical assistance on these projects.

### **Grant Development Plans**

Following project selection and dialogue with OHSP leadership about traffic safety priorities, OHSP staff prepares the grant development plans (GDPs). The GDP assists in ensuring sufficient preparations are made before grant development and project implementation begin, and it also serves as documentation for the program area. OHSP staff members develop GDPs as a team effort to best address projects that overlap network areas, and these GDPs serve as valuable internal planning tools.

Each GDP contains:

- Specific information about the strategy the project will pursue
- Potential grantees
- Funding levels and sources



- Project goals and objectives
- Project schedules

Exhibit 9 is an example of the GDP form.

## **EXHIBIT 9: FY2017 Grant Development Plan Form**

Grant Development Plan

due April 15, 2016

### **Strategy Name**

### **Background/Problem Statement**

### **Program Goal(s) (HSP)**

### **Project Goal(s) (AER)**

### **Project Description(s) (AER)**

### **Impact Statement (What will happen if we do not have this program?)**

### **Funding Recommendation**

### **Information sources and partners consulted**

### **How will this strategy be achieved? Why was this strategy selected? How will the program be evaluated for effectiveness?**

Year of funding?			Will the strategy continue next year?	Y N
Expected grantee			Estimated budget	
October 1 start-up required?	Y N	Split-funded from FY2015?		Y N
Seed-funding grant needing post-OHSP continuation plan?	Y N	If so, does it have one?		Y N
Funds for Program Management Section in-house grant?	Y N	Funds for Communication Section in-house grant?		Y N
For the benefit of locals?	Y N	PI&E materials being made?		Y N
Contractual costs?				Y N
Personnel costs?				Y N
Indirect costs?	Y N	If so, indirect rate		
Program income?	Y N	If so, how much?		
Any equipment?	Y N	If so, matching funds		
Equipment over \$5,000 per item?	Y N	If so, matching funds		

Out-of-state travel?	Y N	If so, purpose of travel?	
SHSP Strategy?	Y N	Ad board approval	Y N

### **Additional Notes**

Prior Liquidation Issues?		First year
Liquidation History (as applicable; use n/a for non-grant years)		
Fiscal Year	Liquidation Amount	Liquidation Percentage
FY2013		
FY2014		
FY2015		
Three year overall average		
Funding Level Justification (how did you determine the requested funding amount?)		
Funding Source		Amount
Author:		Date:
Approval:		Date:

Funding Source	Amount	Funding Source	Amount
	\$		\$

Author  
**Approval**

Date  
**Date**

Following development of GDPs, OHSP program staff members meet with the HSP management team to discuss plans for the next fiscal year, using their GDPs as the basis for discussion.

Discussions begin with an overview of the traffic crash data and problem identification followed by an overview of the GDPs selected to address the identified problems. This presents an opportunity for questioning and discussion, bringing out detail and emphasis that might be lost in pages of text.

### **Management Team Review**

The HSP management team reviews the material presented for final selection of the grant projects that will receive funding. This review includes a summary of factors staff members consider in developing programs and recommendations, which provides an office-wide rather than program area-specific perspective.

In this way, greater attention can be placed on budget limitations and on balancing demands and opportunities in various program areas. Grant development begins with final GDP approval. In addition, OHSP staff share their list of projects with one another to become more aware of plans and partnership opportunities in other program areas.

## Exhibit 10: Telephone Survey Results

May 11	Jun 11	July 11	Aug 11	May 12	Jun 12	July 12	Sep 12	Apr 13	Jun 13	July 13	Sep 13	Feb 14	Apr 14	Mar 15	Apr 15	July 15	Mar 16	May 16
9	6	8	10	N/A	N/A	27	8	N/A	N/A	16	33	41	N/A	55	90	133	60	N/A
"In the past 30 days, have you seen or heard of any special effort by police to arrest drivers in your community for drunk driving?": "Yes"																		
25	16	30	32	N/A	N/A	31	33	N/A	N/A	70	70	61	N/A	266	267	166	180	N/A
"If you drove after having too much to drink and be able to drive safely, how likely are you to be stopped by a police officer?": "Almost certain", "Very likely," or "Somewhat likely"																		
64	62	61	59	N/A	N/A	72	74	N/A	N/A	70	72	384	374	378	389	393	395	387
"When driving this vehicle, how often do you wear your safety belt?": "All the time" & "When was the last time you did NOT wear your safety belt while driving?": "I always buckle my seat belt" or "More than one year ago" (always buckles up)																		
94	97	96	94	90	89	88	87	97	97	98	98	388	391	392	389	393	395	387
"When driving this vehicle, how often do you wear your safety belt?": "Most of the time" or "All the time" (almost always buckles up)																		
94	97	96	94	97	97	97	98	99	99	99	99	41	54	48	72	133	80	111
"In the past 30 days, have you seen or heard of any special effort by police to ticket drivers in your community for safety belt violations?": "Yes"																		
12	38	38	31	9	22	31	33	11	12	31	31	231	234	236	276	239	237	257
"Assume for a moment that you do not use your safety belt AT ALL while driving over the next six months. What are the chances you will receive a ticket for NOT wearing a safety belt?": "Very" or "Somewhat likely"																		
75	74	60	66	67	34	66	47	63	63	69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	53
"When you drive on a local road that has a speed limit of 20 mph, how often would you say you drive faster than 35 miles per hour?": "Most of the time" or "half the time"																		
7	58	15	N/A	N/A	14	14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	129
"When you drive on a freeway with a speed limit of 70 mph, how often do you drive faster than 75 miles per hour?": "Most of the time" or "half the time"																		
18	36	36	N/A	N/A	33	33	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
"If you drove 10 miles per hour over the speed limit on a freeway, would you say your chances of getting a ticket would be very likely, somewhat likely, somewhat unlikely or very unlikely?": "very likely, somewhat likely"																		
33	68	68	N/A	N/A	65	65	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
"In the past 60 days, have you read, seen, or heard anything about speed enforcement by the police?": "Yes"																		
50	26	26	N/A	N/A	20	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	116

Surveys were of 400 Michigan drivers. The four Traffic Safety Performance Measures survey questions on speed were not asked before being added to a 500-driver survey in 2009. Note that the safety belt use question appears twice. The first line is "always," the second is "usually." "Always" is double-filtered: drivers were first asked how often they wear their belts, and if they report "always," they were asked when they last failed to wear it; if that was any time in the past year; they were counted as "usually" rather than "always."

N/A means the question was not asked on the telephone survey.